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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/856,957	05/29/2001	Takafumi Atarashi	Q64627	6061

7590 12/15/2004  
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EXAMINER

NAKHJAVAN, SHERVIN K

ART UNIT PAPER NUMBER

2621

DATE MAILED: 12/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/856,957	ATARASHI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Shervin Nakhjavan	2621	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-17 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>5-29-01</u> . | 6) <input type="checkbox"/> Other: ____.  |

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 5-7 and 10-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase "The resultant interference color" in claims 5, 10, 11 and 13, phrase "the resultant powder" in claims 5, 10 and 11 and further the phrase "the genuine/conterfeit discrimination object" seems to be referring to a previously cited resultant interference color, a resultant powder and an object, respectively, which does not appear in the claims. Therefore, these citations are vague and confusing because, it is unclear what feature or element is further limited by this language.

Claims 6, 7, 12 and 14 variously depend from an indefinite base claim and are thus themselves indefinite.

3. The claims 5-7 and 10-14 are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors. In claim 5, 10, 11 and 13 lines 4-6, it is unclear *how* the base particles are colored, are they colored using multi-layered film or using a resultant interference color, or both. In addition in lines 9 and 10, the phrase "dispersing the resultant powder into a dispersion medium for ink" is indefinite as in what powder is referred to as mentioned above, and if the powder

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is going to replace the ink or used as ink. Therefore, these citations are indefinite and ambiguous because the meets and bounds of the claims are unclear.

Claims 6, 7, 12 and 14 variously depend from an indefinite base claim and are thus themselves indefinite.

4. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrase "can be identified" is open ended and includes certain patterns on objects that do not require identification. Therefore the meets and bounds of the claim is unclear.

#### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 3, 4, 9, 15 and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Liang (US 5,719,948).

Regarding claim 1, Liang teaches a genuine/counterfeit discrimination method, (the preamble has not been considered as part of the body of the claim) comprising

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identifying a combination of at least two of an electric field pattern, a magnetic pattern, an electron beam responsive pattern, an x-ray responsive pattern, an reflected or absorption patterns of visible light, ultraviolet light, and infrared light, using an electric field, a magnetic field, an electron beam, an x-ray beam, visible light, ultraviolet light, or infrared light (Column 7, Lines 46-64, two patterns generated from UV light and visible light are detected for identifying);

Liang teaches limitation of claim 3, each of the patterns is imaged and the images are compared (Column 7, Lines 50-64, wherein two different images of reflected UV and bright light are compared);

Liang teaches, limitation of claim 4, the identification of a visible-light pattern is indispensable (Column 7, Lines 56-59, wherein each pattern is detected with its own detector 40 including the visible light and each detector is indispensable);

Liang teaches limitation of claim 9, a genuine/counterfeit discrimination object, wherein a combination of at least two of an electric field pattern, a magnetic pattern, an electron beam responsive pattern, and reflection or absorption patterns of visible light, ultraviolet light, and infrared lights can be identified therein using an electric field, a magnetic field, an electron beam, visible light, ultraviolet light, or infrared light (Column 12, Lines 43-49, where an article is coated with reflective material which a pattern is reflected by a visible light and a UV light illumination and the patterns are further identified for genuine/counterfeit discrimination purposes);

Liang teaches limitation of claim 15, a genuine/counterfeit discrimination device, comprising at least two devices selected from a device for identifying an electric field

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pattern, a device for identifying a magnetic pattern, a device for identifying an electron beam responsive pattern, a device for identifying an x-ray responsive pattern, a device for identifying a visible-light pattern, a device for identifying an ultraviolet light pattern, and a device for identifying an infrared-light pattern and further comprising a device for comparing and identifying patterns obtained with these identification devices (the system of figure 1 incorporates within it a detector 40 as part of identification device which, in multiple light reflection detection embodiment such as visible light and UV light, it requires addition detector as discussed in column 7, lines 55-64 and further a comparing means is embodied in the microcomputer 100 for comparing the detected identification patterns, column 7, lines 50-54);

Liang teaches the device of claim 16 corresponding to claim 4 above (Column 7, Lines 56-59, i.e. detector 40).

7. Claims 1, 5-7 and 9-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Tahara et al. (US 5,856,048).

Regarding claim 1, Tahara teaches a genuine/counterfeit discrimination method, comprising identifying a combination of at least two of an electric field pattern, a magnetic pattern, an electron beam responsive pattern, an x-ray responsive pattern, an reflected or absorption patterns of visible light, ultraviolet light, and infrared light, using an electric field, a magnetic field, an electron beam, an x-ray beam, visible light, ultraviolet light, or infrared light (Column 5, Lines 20-27, where combination of infrared light and visible light reflected patterns are identified);

Tahara teaches limitation of claim 9, a genuine/counterfeit discrimination object, wherein a combination of at least two of an electric field pattern, a magnetic pattern, an electron beam responsive pattern, and reflection or absorption patterns of visible light, ultraviolet light, and infrared lights can be identified therein using an electric field, a magnetic field, an electron beam, visible light, ultraviolet light, or infrared light (Column 5, Lines 20-27, where combination of infrared light and visible light reflected patterns are identified on the object);

Tahara teaches limitation of claims 5 and 10, the genuine/counterfeit discrimination object is a printed mater obtained through printing with a color ink composition prepared by coating base particles with a multi-layered film to color the particles by means of the resultant interference color, and to enable the particles to show a specific interference reflection peak in a region besides the visible light region (Column 9, Lines 40-53, where preparation of discriminating both visible and not visible light detection is explained based on printing material and holographic or interference structure of the medium of figure 4);

Tahara teaches limitation of claim 6, the base particles used in the color ink composition are a magnetic material (Column 25, Lines 28-36);

Tahara teaches limitation of claim 7, the base particles used in the color ink composition are a conductive material (Column 8, Lines 20-25);

Tahara teaches, limitation of claim 11, the genuine/counterfeit discrimination object is obtained by forming a peculiar differentiation pattern on a substrate by coating with a color ink composition prepared by coating base particles with a multi-layered film to

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color the particles by means of the resultant interference color, and to enable the particles to show a specific interference reflection peak in a region besides the visible light region (Column 9, Lines 40-53, where preparation of discriminating both visible and not visible light detection is explained based on coating material and holographic or interference structure of the medium of figure 4);

Tahara teaches limitation of claim 12 and 14, the matter is a sheet or plate (Column 5, lines 41-46);

Tahara teaches limitation of claim 13, object is obtained by depositing on a substrate a powder (Column 18, Lines 48-50, where the adhesive layer is made of a powder) prepared by coating base particles with a multilayered film to color the particles by means of the resultant interference color, and to enable the particles to show a specific interference reflection peak in region besides the visible light region (Column 9, Lines 40-53, where preparation of discriminating both visible and not visible light detection is explained based on coating material and holographic or interference structure of the medium of figure 4).

### ***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.



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9. Claims 8 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liang in view of Umeda et al. (US 5,138,604).

While Liang fails to specifically teach an electron beam responsive pattern being identified with an electron beam microscope, Liang clearly show the identification of reflected or absorbed light patterns. Absent some showing of criticality or unexpected results, the exact detected kind of pattern used is believed to be within the skill level of the ordinary practitioner in this art, who would find it obvious to choose the most appropriate kind of pattern to detect for counterfeit detection purposes for a given application such as Umeda discussing the reading of information pattern using an electron microscope (Column 19, Lines 43-51).

***Allowable Subject Matter***

10. Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record does not teach identifying combination of patterns using different illumination or radiation, wherein the patterns are identical.

***Other prior art cited***

11. Prior art of record cited and not relied upon is considered pertinent to applicant's disclosure.

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The US Patent 6,460,355; US Patent 5,771,315; US Patent 4,114,804 and US Patent 4,044,231 variously teach pattern detection related to applicant's invention.

**Contact information**

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shervin Nakhjavan whose telephone number is (703) 306-5916. The examiner can normally be reached on Monday through Friday from 8:00 am to 5:30 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Boudreau, can be reached at (703) 305-4706.

**Any response to this action should be mailed to:**

Assistant Commissioner for Patents  
Washington, DC 20231

**Or faxed to:**

(703) 872-9306 for *formal* communications, please mark "**EXPEDITED PROCEDURE**"

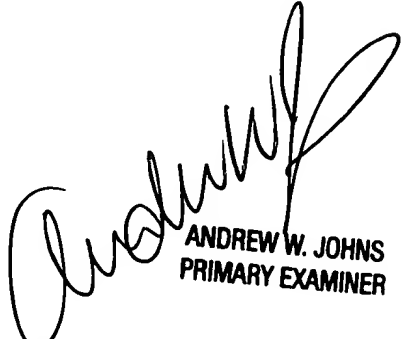
or:

for *informal* or *draft* communications; please label "**PROPOSED**" or "**DRAFT**".

**Hand delivered responses** should be brought to Crystal Park 2, 2121 Crystal drive, Arlington, VA, sixth floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should be directed to the Tech center 2700 customer service office (703) 306-0377.

Shervin Nakhjavan S.N  
Patent Examiner  
Group Art Unit 2621  
December 12, 2004.

  
ANDREW W. JOHNS  
PRIMARY EXAMINER